1000V Digital/Analog Megohmmeter
Models 1050 & 1060

The AEMC Megohmmeter Models 1050 and 1060 are the newest in an innovative family of professional 1000V Digital/Analog insulation testers. They were designed to facilitate testing by incorporating automatic measurement features and user friendly functions.

Measurements are displayed on a large dual-display LCD with bargraph for quick viewing of changes or trends. Resistance readings are displayed on the larger display, and a smaller display is used for test voltage at the sample, test run times (mm:ss), or alarm set points — all accessible at the press of a button. A family of visual indicators for safety and information also compliments the displays. A bright blue electroluminescent backlight makes for clear readings in dark areas.

Both models automatically provide the DAR and PI ratios directly on the display. User defined PI time intervals may also be programmed. The user may even select DAR or PI functions before the test, and the megohmmeter will stop at the appropriate time and display the results. Test run times from 1 second to 59 minutes are also directly programmable. The tested sample, Capacitance, is available at the end of each insulation resistance test.

For specific applications and operator or equipment safety, test voltages may be disabled to avoid any errors. An automatic test inhibitor prevents testing on live circuits above 25V and discharge test voltage may be displayed.

A memory feature in both models permits storage, recalling and displaying of resistance values taken at user specified intervals during a test.

The Model 1060 has an RS-232 interface and a more extensive memory function, which permits the storage of results in files specific to the device under test. Additionally, it also has a built in document function, which prints out a preformatted report on a serial or parallel printer. A standard software package (DataView®Lite) enables the user to display graphs and results for complete documentation and reporting. The Model 1060 can also be programmed and run by a PC with this software. This enables tailored test programs, remote operation and storing of information directly into a PC.

Both models are built into a double insulated field case with a detachable lead/accessory carrying pouch.

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Test Equipment Depot
99 Washington Street
Melrose, MA 02176-6024

www.testequipmentdepot.com
800-517-8431
781-665-0780 FAX

Features

- True Megohmmeter®
- Test voltage combinations of 50V, 100V, 250V, 500V and 1000V
- Insulation measurements to 4000GΩ (4TΩ)
- Direct measurement of DAR and PI values
- Direct measurement of sample Capacitance
- Display of test voltage and run time
- Programmable test run times and PI times
- Smooth and Alarm functions
- Automatic test inhibition if live sample (>25V)
- Automatic discharge after use with voltage display
- Large dual display with time, voltage and measurement
- Bright blue electrolumenescent backlight
- Battery powered
- Auto power-down when not in use
- Remote operation with optional test probe
- Rugged dual wall field case with detachable lead/accessory pouch
- EN 61010-1, 600V, Cat. III

Model 1060 includes these additional features:

- AC rechargeable NiMH batteries
- RS-232 interface for direct printing of results (serial output)
- 128k memory to store measurements in specific files
- Remote operation through PC
- Includes software to configure instrument and generate reports

Applications

- Test insulation on cable, transformers, motors and wiring installations
- High resistance or absorption tests
- Spot reading tests
- Timed resistance or absorption tests
- Dielectric absorption ratio and polarization index tests
- Low insulation test range for testing old or flooded installations
- Motor insulation resistance measurements
- Continuity checks and low resistance measurements
- Computer controlled production line testing
- Predictive maintenance by storing results in PC for trend analysis

FUNCTION	MODEL 1050	MODEL 1060
50V (0.002MΩ to 200GΩ)	✓	✓
100V (0.004MΩ to 400GΩ)	✓	✓
250V (0.01MΩ to 1TΩ)	✓	✓
500V (0.02MΩ to 2TΩ)	✓	✓
1000V (40kΩ to 4TΩ)	✓	✓
Voltage Test/Safety Check (600VAC/DC)	✓	✓
Guard Terminal	✓	✓
Continuity (40Ω) @200mA	✓	✓
Resistance (400kΩ)	✓	✓
Lead Compensation	✓	✓
Backlight	✓	✓
Timer (1–59 minutes)	✓	✓
Digital Dual Display	✓	✓
Analog Bargraph	✓	✓
Auto-Off	✓	✓
Continuity Buzzer	✓	✓
Continuity Buzzer Disable	✓	✓
Voltage Detection (>25V)	✓	✓
Safety Test Inhibitor	✓	✓
Automatic Discharge	✓	✓
Rechargable NiMH Battery	–	✓
AC Supply 85-256V/50/60Hz	–	✓
Battery Powered	–	✓
Battery Capacity (%) Indication	✓	✓
Auto-Off Disable	✓	✓
Automatic DAR/PI	✓	✓
Smooth Function	✓	✓
Memory Storage (128kB)	–	✓
Report Printout on Serial Printer	–	✓
RS-232 Communication	–	✓

Model 1060 checking insulation resistance between windings on a 3 phase motor.

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Key Components

Main plug (direct operation on AC network/battery recharge) (Model 1060 only)
3 x 4mm Ø safety terminals
6 buttons (1050) or 8 buttons (1060); 2nd, R-DAR-PI, R(t) V/Time, Alarm, Smooth; Model 1060 only: MEM, MR, Print, Print Mem
RS-232 serial interfaced male plug (9 pin) for connection to a PC or printer (Model 1060 only)
Rotary selector switch
Dual digital LCD display
Start/stop button
V/TIME
MEM
PRINT
R-DAR-PI
START/STOP
AEMC
MEGOHMMETER
MODEL 1060

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Specifications

MODELS		1050	1060
ELECTRICAL			
INSULATION TESTS			
Test Voltage	50V 100V 250V 500V 1000V	0.002MΩ to 200GΩ 0.004MΩ to 400GΩ 0.01MΩ to 1000GΩ (1TΩ) 0.02MΩ to 2000GΩ (2TΩ) 0.04MΩ to 4000GΩ (4TΩ)	0.002MΩ to 200GΩ 0.004MΩ to 400GΩ 0.01MΩ to 1000GΩ (1TΩ) 0.02MΩ to 2000GΩ (2TΩ) 0.04MΩ to 4000GΩ (4TΩ)
Short Circuit Current		<6mADC	<6mADC
Accuracy	2kΩ to 400GΩ 400GΩ to 4TΩ	±5% of Reading ± 3cts ±5% of Reading ± 10cts	±5% of Reading ± 3cts ±5% of Reading ± 10cts
Automatic DAR (1 min/30 sec)		0.000 to 9.999	0.000 to 9.999
Automatic PI (times programmable)		0.000 to 9.999	0.000 to 9.999
Automatic Capacitance Check		0.005 to 4.999µF	0.005 to 4.999µF
Programmable Run Time R(t)		1 to 59 minutes	1 to 59 minutes
Smooth Function		Yes	Yes
Automatic Discharge		Yes	Yes
Discharge Voltage Display		Yes	Yes
Voltage Test/Safety Check		0 to 1000VAC/DC	0 to 1000VAC/DC
Voltage Warning Indicator		>25V	>25V
Test Inhibition		Yes >25V	Yes >25V
Guard Terminal		Yes	Yes
RESISTANCE TESTS			
Measurement Range		0.01Ω to 400kΩ	0.01Ω to 400kΩ
Test Voltage		12.4VDC max	12.4VDC max
Accuracy		±3% of Reading ± 3cts	±3% of Reading ± 3cts
CONTINUITY TESTS			
Range		0.01Ω to 39.99Ω	0.01Ω to 39.99Ω
Test Current		≥200mA from 0.01 to 20.00Ω	≥200mA from 0.01 to 20.00Ω
Accuracy		±3% of Reading ± 4cts	±3% of Reading ± 4cts
Buzzer		Yes	Yes
DISPLAY			
Backlight		Yes, Electroluminescent Blue	
Display Size		4 x 2¼" (102 x 57mm)	
Digital Display		Two 4000-count displays	
Analog Bargraph		31-segments	
GENERAL			
Power Source		8 x 1.5V C Cells	Rechargeable NiMH Batteries 85 to 256V (50/60Hz)
Dimensions		9.45 x 7.28 x 4.33" (240 x 185 x 110mm)	
Weight		7.5 lbs (3.4kg)	
Protection Index		IP54	
OTHER SPECIFICATIONS			
Remote Test Probe Operation		Yes (optional)	
Smooth Function		Yes	
Report Print Out on Printer		No	Yes – format preset
Storage of Readings over Time R(t)		Yes (20 readings)	Yes (128kB memory)
Programmable Reading Intervals		Yes (5 sec to 10 min)	Yes (5 sec to 10 min)
Test Voltage Display		Yes	
Elapsed Test Time Display		Yes	
Test Range Lock-out		Yes, user programmed	
Storage of Test Results		20 Readings	128kB memory with RS-232
Bi-directional Software		No	Yes (included)
PC Operation of Megohmmeter		No	Yes
SAFETY			
Safety Rating		EN 61010-1, 600V, Cat. III	
CE Mark		Yes	

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Accessories

The accessory carrying pouch attaches itself to the lid of the case via four press-on snaps.

The Models 1050 and 1060 are built into a double case. This extra rugged construction provides double insulation, maximum field durability and ease of serviceability.

Computer Interface Cable, PC RS-232, DB9/DB25 F/F to DB9/DB25 F/F 5 ft Catalog #2119.47 for Model 1060 (included)

Serial Printer Cable RS-23 DB9 F/F 6 ft Catalog #2119.46 for Model 1060 (included)

Remote Test Probe Catalog #2118.97

Detachable accessory pouch includes leads, alligator clips & test probe. Model 1060 pouch also includes cables and US 120V power cord.

ORDERING INFORMATION	CATALOG NO.
Megohmmeter Model 1050 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 50V, 100V, 250V, 500V, 1000V, Auto DAR/PI, Resistance, Continuity)	**Cat. #2130.01**
Includes detachable accessory pouch (one red, one blue test lead, one black shielded lead, three color-coded (black, red and blue) alligator clips, one black test probe), batteries, spare fuses and user manual	
Megohmmeter Model 1060 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 50V, 100V, 250V, 500V, 1000V, Auto DAR/PI, Resistance, Continuity, RS-232 with Software, 128kB Memory)	**Cat. #2130.03**
Includes detachable accessory pouch (one red, one blue test lead, one black shielded lead, three color-coded (black, red and blue) alligator clips, one black test probe; one 6 ft RS-232 DB9/DB25 F/F to DB9/DB25 F/F cable, rechargeable battery, DataView®Lite Software, US 120V power cord, spare fuses and user manual	
Accessories (Optional)	
Remote Test Probe	Cat. #2118.97
Converter, Serial-to-Parallel (RS-232/Centronics)	Cat. #2119.62
Serial Printer Cable RS-232 DB9 F/F 6 ft.	Cat. #2119.46

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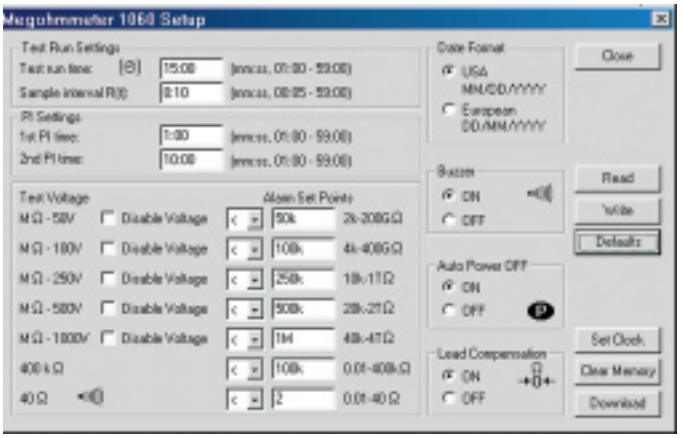
DataView®Lite Software for Model 1060

Model 1060 easily configures land runs right from a PC.



Clear and easy setup from one dialog box

Features

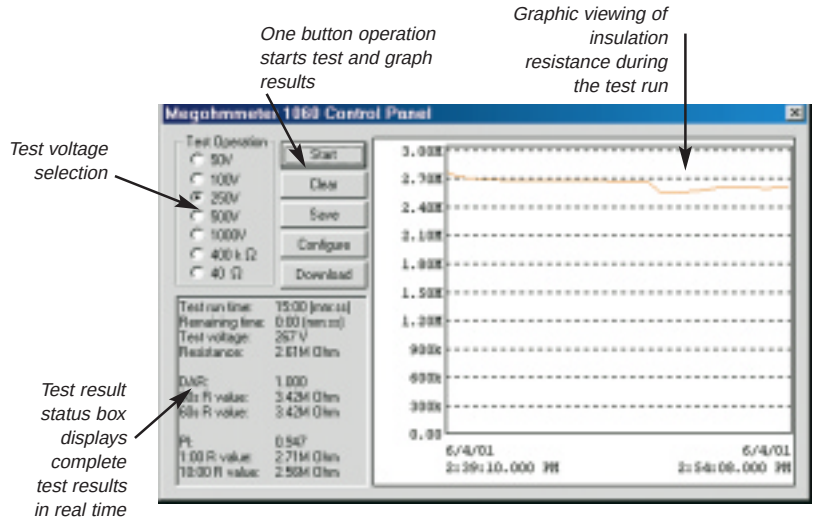
Configure all functions of the Megohmmeter Model 1060

Print reports of all test results

- Select test voltage and run tests from your computer with a simple click and execute process
- Retrieve and display data in real time
- Retrieve data from the instrument's memory
  - Over 1500 insulation resistance measurements
  - Over 4000 resistance measurements
- Display DAR and PI ratios
- Plot graphs of manual and timed tests
- Include your analysis in the comments section with the report
- Store a library of setups for different applications

Minimum System Requirements

- Windows®95/98/2000/ME/XP or Windows®NT 4.0
- 32MB of RAM (128MB recommended)
- 35MB of hard Disk Space (200MB recommended)
- CD Rom Drive



Run test and display results from one dialog box.

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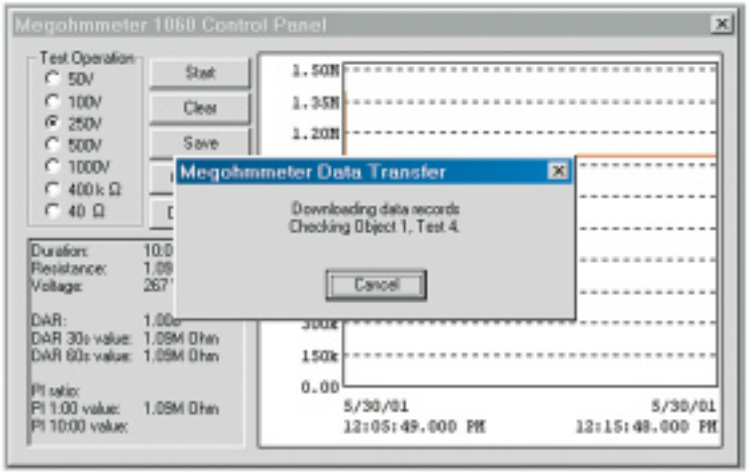
Automatic Report Generation

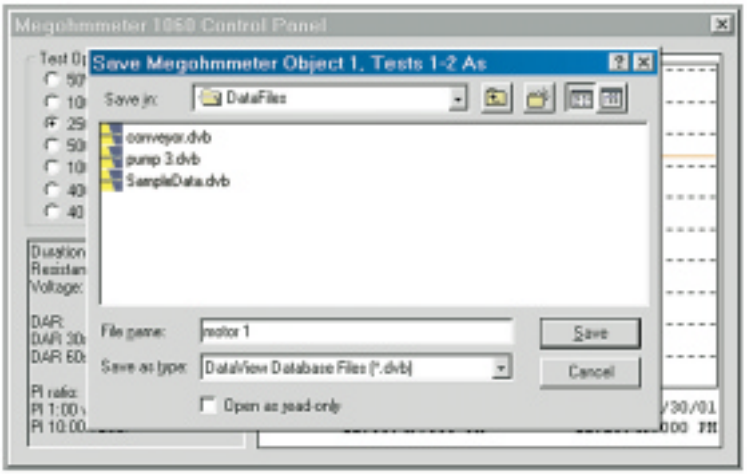
Reports may be displayed on your PC and printed. Each report includes all test results in a tabular and graphic format, as well as operator and test site information. Comments typed in at time of storage will also be included.



A simple press of the download button from either the setup or run dialog boxes will show all test results stored in the Model 1060.

The DataView® Lite Software provides a convenient way to configure and control megohmmeter tests from your computer. Through the use of two clear and easy-to-use dialog boxes, all functions of the Model 1060 can be configured and tests can be initiated. Results can be displayed in real time and stored in your PC. Reports may be printed along with the operator's comments and analysis.

DataView® Lite (Catalog #2125.13) is included with the Model 1060



Each test will be stored as its own file and can be given its own unique file name.

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